

PIC/D-101-59  
19 May 1959

MEMORANDUM FOR: Mr. Wallace Lampshire  
SRS/DPD-DD/P

SUBJECT: PIC Research and Development Report

1. Wright Air Development Center Contract AF 33 (616) - 3678, Task No. 62171, final report on "The Use of Single Crystals of Silver Bromide for Photographic Purposes," by James E. LuValle and Gershen M. Goldberg of Technical Operations Incorporated, Arlington, Massachusetts, has been received. The large single crystals have been produced synthetically. They have taken 1,000,000 roentgens of Cobalt 60 without fogging. They can be produced 70mm wide, 1000' long, and .005 inch thick. They have a resolution capability of 300 l/mm and can be developed in 30 seconds in a single solution. Further research is needed to develop the crystals into a practical taking medium and to develop a method of manufacturing them on a continuous flow basis. The Air Force would like some other branch of the government to add \$50,000 to their \$150,000 to continue this project.
2. Technical Operations Incorporated is performing a state of the art study for the Air Force at Wright Patterson on all unconventional photosensitive processes. This should be completed about November 1959. An unbiased view is being sought by employing a picked panel of experts from all industry.
3. General Electric has developed an electron sensitive mylar tape which will react to a 1 micron electron beam. Images thus recorded may be projected. It may be used to record photos, infra red, radar, or electronic signals.

ARTHUR C. LUNDAHL  
Director,  
Photographic Intelligence Center

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